

46. The ligand profile of claim 2, combined with a second ligand profile, the second ligand profile (a) also being a reproducible characteristic of the given cell, and (b) comprising a representation of at least ten additional polypeptide ligands, all of which bind to a second type of multi-ligand binding receptor different from the first type of receptor.

47. The ligand profile of claim 46, wherein the second type of multi-ligand binding receptor is an MHC class I or MHC class II receptor.

SUB D3)

48. The ligand profile of claim 3, wherein the multi-ligand binding receptor is an MHC class I or MHC class II receptor.

49. The ligand profile of claim 3, wherein the multi-ligand binding receptor is not an MHC class I or MHC class II receptor.

SUB D3)

50. The ligand profile of claim 3, wherein the multi-ligand binding receptor is a chaperone, a chaperonin, a calnexin, a calreticulin, a mannosidase, a N-glycanase, a BIP, a grp94, a grp96, hsp60, hsp65, hsp70, hsp90, hsp25, an E2 ubiquitin carrier protein, an E3 ubiquitin ligase, an unfoldase, hsp100, a proteasome, a trafficking protein, or a retention protein.

51. The ligand profile of claim 3, combined with a second ligand profile, the second ligand profile (a) also being a reproducible characteristic of the given cell, and (b) comprising a representation of at least ten additional polypeptide ligands, all of which bind to a second type of multi-ligand binding receptor different from the first type of receptor.

52. The ligand profile of claim 51, wherein the second type of multi-ligand binding receptor is an MHC class I or MHC class II receptor.

53. The ligand profile of claim 4, wherein the multi-ligand binding receptor is an MHC class I or MHC class II receptor.

SUB D3) 54. The ligand profile of claim 4, wherein the multi-ligand binding receptor is not an MHC class I or MHC class II receptor.

SUB B4) 55. The ligand profile of claim 4, wherein the multi-ligand binding receptor is a chaperone, a chaperonin, a calnexin, a calreticulin, a mannosidase, a N-glycanase, a BIP, a grp94, a grp96, hsp60, hsp65, hsp70, hsp90, hsp25, an E2 ubiquitin carrier protein, an E3 ubiquitin ligase, an unfoldase, hsp100, a proteasome, a trafficking protein, or a retention protein.

56. The ligand profile of claim 4, combined with a second ligand profile, the second ligand profile (a) also being a reproducible characteristic of the given cell, and (b) comprising a representation of at least ten additional polypeptide ligands, all of which bind to a second type of multi-ligand binding receptor different from the first type of receptor.

57. The ligand profile of claim 56, wherein the second type of multi-ligand binding receptor is an MHC class I or MHC class II receptor.

SUB D3) 58. The ligand profile of claim 5, wherein the multi-ligand binding receptor is an MHC class I or MHC class II receptor.

59. The ligand profile of claim 5, wherein the multi-ligand binding receptor is not an MHC class I or MHC class II receptor.

SUB B5) 60. The ligand profile of claim 5, wherein the multi-ligand binding receptor is a chaperone, a chaperonin, a calnexin, a calreticulin, a mannosidase, a N-glycanase, a BIP, a grp94, a grp96, hsp60, hsp65, hsp70, hsp90, hsp25, an E2 ubiquitin carrier protein, an E3 ubiquitin ligase, an unfoldase, hsp100, a proteasome, a trafficking protein, or a retention protein.

SUB D3) 61. The ligand profile of claim 5, combined with a second ligand profile, the second ligand profile (a) also being a reproducible characteristic of the given cell, and (b) comprising a

representation of at least ten additional polypeptide ligands, all of which bind to a second type of multi-ligand binding receptor different from the first type of receptor.

SUB D3) 62. The ligand profile of claim 61, wherein the second type of multi-ligand binding receptor is an MHC class I or MHC class II receptor.

63. The method of claim 10, wherein the selected type of multi-ligand binding receptor is an MHC class I or MHC class II receptor.

SUB B6 64. The method of claim 10, wherein the selected type of multi-ligand binding receptor is a chaperone, a chaperonin, a calnexin, a calreticulin, a mannosidase, a N-glycanase, a BIP, a grp94, a grp96, hsp60, hsp65, hsp70, hsp90, hsp25, an E2 ubiquitin carrier protein, an E3 ubiquitin ligase, an unfoldase, hsp100, a proteasome, a trafficking protein, or a retention protein.

65. The method of claim 10, wherein the at least one chemical or physical attribute comprises hydrophobicity or charge.

66. The method of claim 10, wherein the at least one chemical or physical attribute comprises mass-to-charge ratio.

67. The method of claim 10, wherein the at least one chemical or physical attribute comprises amino acid sequence.

68. The method of claim 14, wherein the first type of multi-ligand binding receptor is an MHC class I or MHC class II receptor.

R1 SUB B6 69. The method of claim 14, wherein the first type of multi-ligand binding receptor is a chaperone, a chaperonin, a calnexin, a calreticulin, a mannosidase, a N-glycanase, a BIP, a grp94, a grp96, hsp60, hsp65, hsp70, hsp90, hsp25, an E2 ubiquitin carrier protein, an E3 ubiquitin ligase, an unfoldase, hsp100, a proteasome, a trafficking protein, or a retention protein.

70. The method of claim 14, wherein the at least one chemical or physical attribute comprises hydrophobicity or charge.

71. The method of claim 14, wherein the at least one chemical or physical attribute comprises mass-to-charge ratio.

72. The method of claim 14, wherein the at least one chemical or physical attribute comprises amino acid sequence.

73. The method of claim 17, comprising the further steps of selecting a ligand which is represented in one profile but not in the other, and identifying the amino acid sequence of the ligand.

74. The method of claim 17, wherein the given type of multi-ligand binding receptor is an MHC class I or MHC class II receptor.

338 56 75. The method of claim 17, wherein the given type of multi-ligand binding receptor is a chaperone, a chaperonin, a calnexin, a calreticulin, a mannosidase, a N-glycanase, a BIP, a grp94, a grp96, hsp60, hsp65, hsp70, hsp90, hsp25, an E2 ubiquitin carrier protein, an E3 ubiquitin ligase, an unfoldase, hsp100, a proteasome, a trafficking protein, or a retention protein.

76. The method of claim 17, wherein the at least one chemical or physical attribute comprises hydrophobicity or charge.

77. The method of claim 17, wherein the at least one chemical or physical attribute comprises mass-to-charge ratio.